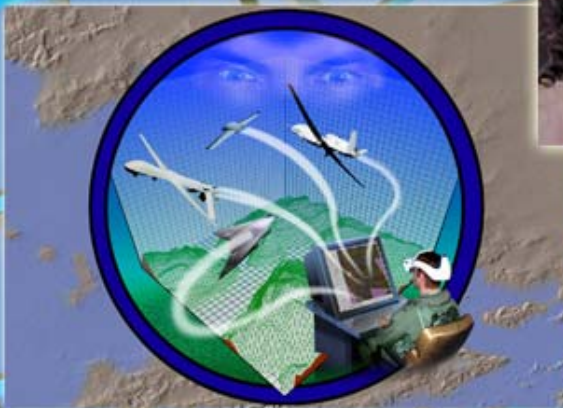


Human Effectiveness Directorate

Strategic Plan



U.S. AIR FORCE



Air Force
Research Laboratory | AFRL
Science and Technology for Tomorrow's Aerospace Force

From the Director...

Our nation faces new foes that were not envisioned when today's operational systems were in research and development many years ago. Nor were today's adversaries considered during the conceptualization of many systems that are now in the acquisition pipeline. The Department of Defense, the Air Force, and our directorate are actively transforming to meet the new challenges of implementing quicker, more precise, more lethal weapon systems. This transformation means using legacy and emerging systems in innovative ways. In short, we must "think" differently about how we use all systems – including the human system.



As we look to the future, we must meet the new challenges with a strategic approach that provides a clear vision. We must apply our resources to the "end game" and focus on the key technologies that give warfighters the "most bang for the buck." New challenges require our warfighters to have flexible, game-winning capabilities that permit precise, measured responses with acceptable risk. We are postured, through our strategic planning, to support the Air Force's transformation to realize the vision of global vigilance, reach, and power in the changing world environment. Our strategic directions are focused on helping the information warrior think, decide, and act in new ways, on reducing decision times and improving decision quality through improved human-system interfaces and processes, and on protecting all airmen in all offensive and defensive environments.

While we must retain our core competencies, we will constantly seek to quickly transfer mature technology to the warfighter and then transform our research capacity to attack new, often radically different, human-centered challenges. Transformation will be constant. We will provide innovative solutions to meet the short-term objectives of the joint deployed task forces while simultaneously pursuing world-class scientific investigations to address the fundamental issues associated with long-term technical challenges.

This Strategic Plan is the result of substantive, intense deliberations by the directorate's senior leaders. The Plan is based on our belief that the human is the centerpiece of any effective weapon system, and that unleashing human capability is the key to a weapon system's performance. Our mission is to provide the technologies and knowledge that enable the human to perform, mentally and physically, with the hardware and software systems that will guarantee success in future Air Force operations.



Hendrick W. Ruck, PhD, SES
Director

OUR VISION

"Unleashing the power of human performance through technology"

- **Prepare the Force**
- **Integrate Personnel with Systems Technology**
- **Protect the Force**
- **Deploy and Sustain the Force**

OUR MISSION

Provide science and leading edge technology to:

- **Define human capabilities, vulnerabilities, and effectiveness**
- **Train warriors**
- **Integrate operators and weapon systems**
- **Protect Air Force people**
- **Sustain aerospace operations**

The planning activity, using the planning model shown on the next page, yielded the formulation of five strategies to enable the vision:

- **Science and Technology**
- **Technology Value**
- **Transformation**
- **Business Operations**
- **Enterprise Resources**

The purpose of this brochure is to convey the strategies and goals to directorate personnel.



This Strategic Plan was developed through a series of corporate meetings using the planning process outlined below. Driven by requirements from our stakeholders and directives from Congress, DoD, and Air Force senior leaders, the vision and mission statements were developed as guiding principles to ensure our science and technology contributions provide value. In-depth analyses of the Directorate's strengths and weaknesses led to identification of threats and opportunities to be mitigated and exploited respectively. Once the strategies were formulated, implementation plans were developed to guide the Program Objective Memorandum submission. Resource definition and allocation is an ongoing process to ensure alignment with the strategy. Adjustments to the strategy will be made based on assessment of performance parameters (metrics) established by the Human Effectiveness Directorate's Corporate Board.



At the highest level, the Strategic Plan is comprised of five strategies:



Science and Technology Strategy

Develop, integrate, demonstrate, and transition affordable science and technology to meet warfighter needs



Technology Value Strategy

Deliver the value of Human Effectiveness science and technology



Transformation Strategy

Enable the Air Force's transformation from platform-centric programs to development of effects-based combat capabilities



Business Operations Strategy

Integrate our business operations and reduce costs



Enterprise Resources Strategy

Enable an agile workforce and foster an environment of organizational excellence

Strategic Planning Model



SCIENCE AND TECHNOLOGY STRATEGY



Develop, integrate, demonstrate, and transition affordable science and technology to meet warfighter needs

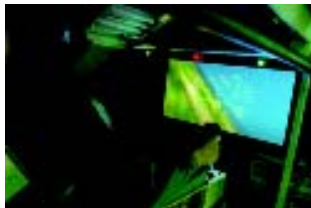
The Science and Technology Strategy is comprised of three Thrust-specific goals:

- Enable warfighters to train as they fight by advancing education and training technologies and methods to provide required mission competencies for the expeditionary aerospace force.



- Enable improved decision effectiveness for all warfighters by advancing cognitive modeling science, task critical information portrayal, and decision support technology.

- Predict and mitigate the influence of aerospace stressors, toxic hazards, and directed energy to maximize immunity from threats.



TECHNOLOGY VALUE STRATEGY



Deliver the value of Human Effectiveness science and technology



Delivering quality and value to our customers is why we exist. The delivery of value depends on accomplishing four primary goals in this strategy.

- Demonstrate value and educate stakeholders on the relevance of human effectiveness technologies
- Provide timely, objective, expert advice to decision makers
- Participate in and add value to Joint and Air Force studies and planning activities



- Collaborate with academia and industry to support Air Force needs and to transfer technology

Many avenues to deliver value exist. Our challenge is to deliver our value using the most effective modes.



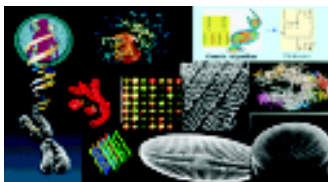
TRANSFORMATION STRATEGY



Enable the Air Force's transformation from platform-centric programs to the development of effects-based combat capabilities

Transformation is the key to staying ahead of our adversaries. Our energy in transformation will be to:

- Invest in long-term research focused on biotechnology, directed energy weapons bioeffects, and human-centered information operations that will enable revolutionary combat capabilities
- Stimulate and develop revolutionary changes to concepts of operation and warfighting capabilities using emerging technologies in radically different ways
- Increase the directorate's capacity to meet current and future Air Force transformational technology development needs and to expeditiously transfer technology



Transformation is not an option. Transformation is a must if we are to enable our warfighters to stay ahead of our adversaries.

BUSINESS OPERATIONS STRATEGY



Integrate our business operations and reduce costs

Business operations are essential to support delivery of technology to the directorate's customers. Without efficient processes, work schedules slip and productivity suffers. Therefore we must:

- Communicate, standardize, document, and automate corporate business processes
- Measure and streamline business processes to reduce costs
- Provide technical information to support research, development, and decision making
- Provide cost visibility throughout the Directorate
- Optimize our infrastructure to meet S&T program requirements and to reduce operating costs



Communication and documentation of the directorate's business practices are crucial steps to improve overall processes, reduce costs, and eliminate non-contributing steps in delivering technology.



ENTERPRISE RESOURCES STRATEGY



Enable an agile workforce and foster an environment of organizational environment of excellence

An agile workforce and an innovative work environment are key elements in the development of state-of-the-art science and technology products. To achieve these elements, we must:

- Create an enterprise environment that supports innovation and change to meet Air Force S&T needs
- Create a collaborative workforce, innovative methods, and novel facilities to support the S&T strategy
- Implement the principles of Science and Technology Workforce-21
- Through accessions and individual development stimulate our workforce to meet future technological challenges
- Develop skills of leadership, teamwork, and participative decision making for every individual at every level of the organization

These goals are key components to our continued success in fostering excellence in all directorate activities.



SUMMARY

The Human Effectiveness Directorate's Strategic Plan identifies five key strategies focused on providing human-centric solutions to the warfighter's operational needs.

The delivery of high quality, cost-effective science and technology to the operational Air Force will be accomplished via implementation of these strategies. The products will be on-time, on-target, and delivered with value; a value that is easily recognized and endorsed by the operational customer. Infrastructure and operating costs will be reduced through



streamlining and integration of business operations. Well-documented business processes will provide a foundation to increase efficiency and increase understanding of the role of our customers and suppliers in the conduct of business. The creation of an agile workforce is crucial to an organizational paradigm shift towards developing the key competencies needed for the future. Continued success depends on the acquisition of new competencies and the adaptation of current competencies to new challenges. Streamlined business operations and focused competencies combine to yield an increase in the capacity to meet current and future strategic challenges. The Human Effectiveness strategies are interdependently linked toward a common vision –

Unleashing the power of human performance through technology



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